## EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Applicant Representative, Mr. Gerald Shekleton on February 23, 2009.

**Regarding Specification:**

**[0001]** ~~Software programming code, which embodies aspects of the present invention, is typically maintained in permanent storage, such as a computer readable medium. In a client-server environment, such software programming code may be stored on a client or a server. The software programming code may be embodied on any of a variety of known media for use with a data processing system. This includes, but is not limited to, magnetic and optical storage devices such as disk drives, magnetic tape, compact discs (CD's), digital video discs (DVD's). In addition, while the invention may be embodied in computer software, the functions necessary to implement the invention may alternatively be embodied in part or in whole using hardware components such as application-specific integrated circuits or other hardware, or some combination of hardware components and software.~~ <u>This invention relates to communications</u>

networks. More particularly, this invention relates to methods and systems for improved utilization of communications networks configured as layer-2 -ring networks.

**[0043]** (currently amended) Software programming code, which embodies aspects of the present invention, is typically maintained in permanent storage, such as a computer readable medium. In a client-server environment, such software programming code may be stored on a client or a server. The software programming code may be embodied on any of a variety of known media for use with a data processing system. This includes, but is not limited to, magnetic and optical storage devices such as disk drives, magnetic tape, compact discs (CD's), digital video discs (DVD's)[,] ~~and computer instruction signals embodied in 3 transmission medium with or without 3 carrier wave upon which the signals are modulated. For example, the transmission medium may include a communications network, such 3s the Internet~~. In addition, while the invention may be embodied in computer software, the functions necessary to implement the invention may alternatively be embodied in part or in whole using hardware components such as application-specific integrated circuits or other hardware, or some combination of hardware components and software.

**Regarding claim 22**;

22. (Currently amended) The computer software product according to claim 17, wherein said ingress nodes are ~~adapted~~ configured to upload said host table by flooding router LSA's with a mask.

**Regarding claim 25**;

25. (currently amended) The computer software product according to claim 17, wherein said ingress nodes are ~~adapted~~ configured to upload said host table by external LSA advertising to said data network.

**Regarding claim 32**;

32. (currently amended) A network routing system for obtaining ingress from an external layer-3 network to a layer-2 ring network to reach nodes thereof, comprising:

first routers disposed in ingress nodes of said ring network, said first routers being ~~adapted~~ configured for creating entries in a host table, each of said entries comprising an address of a respective one of said nodes of said ring network and a metric; said first routers being further ~~adapted~~ configured for uploading said host table to external elements of a data network that interfaces with said ring network via said ingress nodes; a

second router disposed in at least one of said external elements, said second router being ~~adapted~~ configured for defining paths from said external elements to designated ones of said nodes of said ring network, each of said paths leading through a selected one of said ingress nodes responsively to said metric; and transmitting data from network elements that are external to said ring network to at least one of said nodes via a selected one of said paths.

**Regarding claim 64**;

64. (currently amended) The computer software product according to claim 59, further comprising ~~the~~ a step of memorizing said paths in said host table of said nodes.

**Regarding claim 71**;

71. (currently amended) A network routing system for obtaining egress from a layer-2 ring network to an external layer-3 network comprising:

a plurality of routers disposed in nodes of said ring network, said routers being ~~adapted~~ configured for creating entries in a

host table, each of said entries comprising an address of a respective one of said nodes of said ring network and a metric, said routers being further ~~adapted~~ configured for defining paths from said nodes through egress nodes of said ring network, for selecting one of said paths responsively to said metric; and for transmitting data from said nodes via said selected paths to network elements that are external to said ring network.

***Reason for Allowance***

2. Claims 1-84 are allowed over prior art.

3. The following is an examiner's statement of reasons for allowance: In light of Applicant's amended to the specification, Examiner withdraws previous 101 rejection associated with claims 17-31 and 59-70. As indicated in the previous office action, claims 32-46 and 83-84 contain allowable subject matter

4. Although the prior art combined discloses RPR ring architecture and cost metrics associated with path selection in a multi-access environment, the prior art fail to teach with respect to claim 1 and 17, uploading host table to external elements of layer-3 network, defining paths from external elements to designated ones of said nodes of said ring network, by selecting one of ingress nodes for each of paths responsively to metric, with respect to claim 47, 59 and 71, selecting one of defined paths responsively to metric and transmitting data from nodes of ring via selected paths to network elements external to ring, with respect to claim 32, second router disposed in at least one of external elements, and defining paths from external elements to designated ones of said nodes of said ring, each of said paths leading through a selected one of ingress nodes, with respect to claim 83, non-interface nodes of the ring nodes of said ring network creating second entries in a second host table, each of said second entries including an address of a respective one of said interface nodes and a second metric, using said second host table identifying optimum egress paths from said non-interface nodes through different ones of said interface nodes of said ring network respectively to said second metric.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

/Prenell Jones/

February 23, 2009

/Wing F. Chan/

Supervisory Patent Examiner, Art Unit 2419

2/25/09